UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,414	07/18/2003	Avinash Chidambaram	79115-25 /aba	2788

7380 7590 11/28/2007

SMART & BIGGAR
P.O. BOX 2999, STATION D
900-55 METCALFE STREET
OTTAWA, ON K1P5Y6
CANADA

EXAMINER	
THERIAULT, STEVEN B	
ART UNIT	PAPER NUMBER
2179	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/621,414	CHIDAMBARAM ET AL.	
	Examiner	Art Unit	
	Steven B. Theriault	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the following communications: Amendment filed 09/05/2007.

This action is made Final.

2. Claims 1 -25 are pending in the case. Claims 1, 18, and 19 are the independent claims.

Claim Rejections - 35 USC § 103

3. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1-25 are rejected under 35 U.S.C 103(a) as being unpatentable over Goodrich et al (hereinafter Goodrich) U.S. Patent No. 7,111,018 filed Feb. 4, 2003 in view of Siemens et al (hereinafter Siemens) "System Simulator for Operations" June 2002, in further view of Bjorklund et al. (Hereinafter Bjorklund) U.S. Patent No. 7062359 issued June 13, 2006 and filed Dec. 26, 2001.**

In regard to **Independent claim 1,** Goodrich teaches a graphical interface method for producing configuration information for control apparatus for a power system including a plurality of power supplies, comprising the steps of, using a processor:

- Receiving information relating to characteristics and connections of the plurality of power supplies, said information determining a topology of the power system (Goodrich column 9, lines 37-67 and column 10, lines 15-34) Goodrich teaches the receipt of a file from an EMS where the information is used to construct a topology of the electrical power system.
- Displaying on a display device a graphical display representing the topology of the power system (Goodrich figures 22-23) Goodrich shows a network topology.

Goodrich does not expressly teach:

- Displaying on the display device a graphical display representing the sequencing of the plurality of power supplies;
- Producing said configuration information for the control apparatus consistent with the displayed topology and sequencing of the plurality of power supplies.

However, Siemens teaches a power system simulator that performs a sequence of operations in sequencing the output of power supplies (See page 4, Short circuit analysis). Siemens also teaches displaying the sequencing information (See page 7). Siemens also shows a topology diagram and on the state diagram and after running through the sequence operation the diagram displays information depicting the sequenced power circuits as well as the configuration information that is consistent with the displayed topology. Siemens and Goodrich are analogous art because they both teach providing computer systems to the EMS providers for the purposes of displaying information about a given network so that a user can perform operations on the network.

Goodrich in view of Siemens do not expressly teach:

- Receiving user input information to determine sequencing for startup or shutdown of the plurality of power supplies

Siemens teaches an Activity sequence control and a user interface that allows a user to change network configurations and bring units online and offline, which the examiner interprets as the process of starting and stopping the unit from within the interface. However, the activity sequence control is used for fault testing where circuit analysis is performed via a simulation routine. Siemens teaches the user interface displays the processes allowing the user to perform the simulation of operations (See page 1 and page 5). While the entering in of fault cases can be considered user input to the system and an activity sequence can be interpreted as an operation that performs events in a given sequence, the interface of Siemens does not expressly recite a process of user input specifying information determining the sequencing of the startup or shutdown of the power supplies. Bjorklund teaches a process of specifying the startup and shutdown of power flow of devices in a power substation through a user interface (See column 8, lines 34-43). Bjorklund teaches the entire system encompasses a process (See Figure 4, #1) where the process is specified to manage the substation through a series of communication channels. The communications equipment monitors every device for a variety of power level variables (See column 10, lines 65-67 and column 11, lines 1-10). Bjorklund teaches that each device in the interface has an Icon with superimposed real time values on it. The user selects the Icon to display other values or to control the device, which can allow the user to stop, start, and reverse, etc the device through the device equipment interfaces (See column 9, lines 42-60 and column 11, lines 35-67). Bjorklund, Siemens, and Goodrich all teach graphical interfaces showing the graphical representation of the circuit (See Bjorklund, column 11, lines 47-51, Goodrich Figure 23 and Siemens page 5). The all teach the process of allowing the user to edit power device configurations, albeit through different processes, and to access a database containing information regarding the connection and performance of the power devices.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Siemens, Goodrich, and Bjorklund in front of them, to modify the network topology diagrams of Goodrich to include a sequencing of the power circuits to check the network connections that are shown in the diagram as taught in Siemens and to

include the sequencing to start and stop a device. Goodrich teaches a process of checking the status of the network objects in the diagrams (See column 16, lines 24-51) and bringing the device online and offline during a fault simulation. Bjorklund teaches a process where every device is controlled from a user interface and the device can be selected by the user via the interface and the process allows the user to start, stop, reduce flow, regulate, and reverse power from the device. The motivation to modify the system of Goodrich with the system of Siemens and Bjorklund comes from the suggestion in Bjorklund to provide process in a variety of applications including power supplies to customers (see column 12, lines 30-37) and provides an expressed example of simulation in a power control system, as suggested by Siemens, to test a system under certain conditions (See column 12, lines 39-50).

With respect to **dependent claim 2,** Goodrich teaches a method wherein the step of receiving said information determining a topology of the power system comprises receiving user input information for identifying information for at least one of the plurality of power supplies in a database (Goodrich column 14, lines 20-30 and Figures 24-29).

With respect to **dependent claim 3,** Goodrich teaches a method wherein the step of producing said configuration information comprises deriving information for said at least one of the plurality of power supplies from the database (Goodrich column 14, lines 45-60). Goodrich teaches the purpose of the invention is to derive from the database the imported files to show the topology of two EMS providers.

With respect to **dependent claim 4,** Goodrich teaches a method wherein the step of displaying a graphical display representing the topology of the power system comprises displaying icons representing the plurality of power supplies and paths extending to and from the icons representing input and output voltage lines of the power supplies (See figure 26, Topology based on base voltages).

With respect to **dependent claim 5,** Goodrich teaches a method wherein the step of displaying a graphical display representing the sequencing of the plurality of power supplies comprises displaying at least some of said icons representing the plurality of power supplies in relatively different positions along respective ones of said paths (Goodrich Figures 22-29) Goodrich shows Icons for different power supplies in different location in the topology and with different symbols.

With respect to **dependent claims 6 and 7,** as indicated in the above discussion, Goodrich in view of Siemens teaches every element of claim 5.

Goodrich does not expressly teach a method wherein the step of displaying a graphical display representing the sequencing of the plurality of power supplies further comprises displaying at least one additional symbol representing said sequencing. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows arrows representing the sequencing (See page 7) e.g. – 376mv to pacific.

With respect to **dependent claims 8 -10,** Goodrich teaches a method wherein the step of displaying a graphical display representing the power system comprises displaying icons representing the plurality of power supplies (See Figures 22-29) Goodrich shows the power supplies displayed as Icons.

Goodrich does not expressly teach the displaying the sequencing of the system and at least one additional symbol representing said sequencing. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows arrows representing the sequencing (See page 7) e.g. –376mv to pacific. Siemens also shows a number on the top of each of the Icons that represent the power supplies (See page 7, No. 2, 4, 5 and 6).

With respect to **dependent claim 11,** Goodrich teaches a method wherein the step of displaying a graphical display representing the power system further comprises displaying paths extending to and from the icons representing input and output voltage lines of the power supplies (Goodrich figure 26) Goodrich shows the Topology based on voltages and paths to each connected supply. Goodrich does not teach displaying the sequencing of the system and displaying on the sequenced paths the voltages of the power supplies. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows the voltages of the supplies representing during the sequencing (See page 7) 213 kv.

With respect to **dependent claims 12 and 13,** as indicated in the above discussion, Goodrich in view of Siemens teaches every element of claim 1.

Goodrich does not expressly teach wherein the step of receiving user input information to determine sequencing of the plurality of power supplies comprises the steps of displaying options for possible sequencing of each of the plurality of power supplies after another of the plurality of power supplies, and determining sequencing in response to user input selection of said options However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows the process of selecting the type of sequencing the user wishes to perform (See page 5).

With respect to **dependent claims 14,** as indicated in the above discussion, Goodrich in view of Siemens teaches every element of claim 1.
Goodrich in view of Siemens expressly shows sequencing for the flow of current through the circuit and an interface that allows a user to bring a device online and offline (See page 1).

Goodrich in view of Siemens does not expressly teach wherein the graphical display receives user input representing the sequencing of the plurality of power supplies represents startup sequencing of the power supplies, and the step of producing said configuration information for the control apparatus comprises producing said configuration information for startup sequencing of the power supplies consistent with the displayed sequencing and for normal shutdown of the power supplies with sequencing reversed from the startup sequencing. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Bjorklund, because Bjorklund shows the process of using a graphical interface to control the start, stop and reversing of power through devices in a variety of operational modes (See column 8, lines 30-42) and the ability of the user to select any icon from the interface to engage the start and stop procedure, which can provide the structure to allow for a specific icon to be selected in a sequence as specified by the graphical circuit in Bjorklund.

With respect to **dependent claims 15,** Goodrich teaches the method wherein the steps of displaying comprise representing different types of power supply by different icons (Goodrich figures 22-29) Goodrich shows different icons for the different types of power supplies.

With respect to **dependent claims 16,** Goodrich teaches a computer readable storage medium having software stored thereon for instructing a processor to implement the method of claim 1 (See column 9, lines 19-35).

With respect to **dependent claim 17,** Goodrich teaches a method of configuring control apparatus for a power system including a plurality of power supplies, comprising the steps of producing configuration information for the control apparatus using the method of claim 1, and transferring the configuration information to the control apparatus (See column 14, lines 1-20).

In regard to **claims 18 and 19,** claims 18 and 19 reflect methods for generating an interface with substantially similar subject matter as claim 1 and comprising computer readable instructions via a processor for performing the steps of method claim 1 and is rejected along the same rationale.

With respect to **dependent claim 20,** Goodrich teaches a method wherein the step of displaying a graphical display representing the power supplies and their sequencing comprises displaying icons representing the plurality of power supplies and displaying paths extending to and from the icons representing input and output voltage lines of the power supplies (Goodrich figure 26) Goodrich shows the Topology based on voltages and paths to each connected supply. Goodrich does not teach displaying the sequencing of the system and displaying on the sequenced paths the voltages of the power supplies. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows the voltages of the supplies representing during the sequencing (See page 7) 213 kv.

With respect to **dependent claim 21,** Goodrich teaches a method wherein the step of displaying icons comprises representing different types of power supply by different icons (Goodrich figures 22-29) Goodrich shows different icons for the different types of power supplies.

With respect to **dependent claim 22,** Goodrich teaches a method wherein the step of displaying further comprises displaying at least some of said icons representing the power supplies in relatively different positions along respective ones of said paths to represent the sequencing of the power supplies (Goodrich Figures 22-29) Goodrich shows Icons for different power supplies in different location in the topology and with different symbols.

With respect to **dependent claims 23 and 24,** as indicated in the above discussion, Goodrich in view of Siemens teaches every element of claim 20.

Goodrich does not expressly teach a method wherein the step of displaying a graphical display representing the sequencing of the plurality of power supplies further comprises displaying at least one additional symbol representing said sequencing. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Siemens, because Siemens shows arrows representing the sequencing (See page 7) e.g. – 376mv to pacific.

With respect to **dependent claim 25,** Goodrich teaches a computer readable storage medium having software stored thereon for instructing a processor to implement the method of claim 19 (See column 9, lines 19-35).

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re *Heck*, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re *Lemelson*, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 09/05/2007 have been fully considered but they are not persuasive.

Applicant argues that Goodrich does not disclose an interface to present configuration information to a power system

Applicant argues that Goodrich does not disclose an interface to present configuration information to a power system (See page 6, bottom) but provides no evidence as to why the applicant

believes the feature is missing. In contrast, the Examiner notes that the interface of Goodrich (See Figure 2, 56 and column 14, lines 20-43) where the electrical management system (EMS) has a database containing the connectivity information (configuration) that can be edited by the user. The GUI allows the user to see in a graphical form the configuration of a given circuit, the device types, and their locations (e.g. Figure 23, company, division, east/west, AC line segment). Therefore, contrary to applicant's assertions the claims recite broad limitations that the examiner interprets the prior art as providing structure that read on the claims.

In response to applicant's argument that Siemens discloses a different process for showing a sequence on the interface and for a different purpose, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, while the activity sequence control system is used for fault simulations to test a circuit, nonetheless the system allows a user via the interface to configure the system, bring the devices online and offline, which suggests to the skilled artisan that the structure exists to allow for the user to setup an activity to watch a series of simulations where different power devices are turned on an off in a certain order. In the above new rejection, the examiner has made clear in the interpretation that while the Siemens reference does teach the ability to turn machines on an off it does not specifically recite a process of user input specifying information determining the sequencing of the startup or shutdown of the power supplies and modifies the reference with Bjorklund to teach the missing limitation.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M, W, F 10:00AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven B Theriault/
Patent Examiner
Art Unit 2179

WEILUN LO
SUPERVISORY PATENT EXAMINER